# Barriers in preventing healthcare associated infections in the nurses' activity

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## **INTRODUCTION**

Healthcare associated infections (HCAI) represent unwanted complications of health care, with a significant impact on the patients' evolution. The most simple and efficient method of controlling and limiting HCAI is hand hygiene. Although the medical staff acknowledges the importance of hand hygiene, this isn't reflected always in their clinical practice. A source of low hand hygiene compliance in health care professionals could be represented by an inadequate knowledge level regarding the importance of hand hygiene, indications, technical criteria and international recommendations. Continuing medical education (CME) might thus represent an important strategy of improving hand hygiene compliance among the medical staff.

### MATERIAL AND METHOD

The purpose of the study made between February-June 2018 was to identify the main barriers of the nurses' low compliance regarding their knowledge level about hand hygiene and HCAI prevention. The determined main objectives were: a) to identify the nurses knowledge level; b) to identify the knowledge gaps; and c) to establish a correlation between the knowledge level and the work experience. We used a 25-item questionnaire of an average degree of difficulty. The statistical analysis was performed using SPSSv23.0.

		Score	Age	Work experience (years)
Score	Pearson Correlation	1	033	072
	Sig. (2- tailed)		.703	.282
	N	236	134	223
	Pearson Correlation	033	1	.814**
Age	Sig. (2- tailed)	.703		.000
	N	134	134	128
Work	Pearson Correlation	072	.814**	1
experience (years)	Sig. (2- tailed)	.282	.000	
	Ν	223	128	223

#### \*\*. Correlation is significant at the 0.01 level (2-tailed)

The items regarding:	
Hand hygiene	
HCAI prevention	
Disinfection and sterilization	
Standard precautions and precautions regarding the mode of transmission	
Accidental exposure to biological products	
Medical waste management	

Knowledge level	Very good	Good	Satisfactorily
Percent	32,2%	28,8%	39%

# RESULTS

The study included 236 nurses of an average age of 45,6 and with an average work experience of 15 years. 32,2% of the participants had a very good knowledge level, 28,8%, a good level and 39%, a satisfactorily level. The average score of the sample was good, which correlated negatively, but insignificantly with the age and the work experience. Generally, the nurses had difficulties in giving the right answer to the items regarding hand disinfection hygiene, HCAI prevention, and sterilization. The items that presented fewer difficulties were the ones about: standard precautions and precautions regarding the mode of transmission, accidental exposure to biological products and medical waste management.

### CONCLUSIONS

Improving the nurses' hand hygiene compliance in health care practice entails the implementation of a CME strategy adapted to their educational needs, that will target the areas identified as being deficient: hand hygiene, HCAI prevention, disinfection and sterilization.

### **KEY WORDS:**

nurses, knowledge, healthcare associated infections, hand hygiene, barriers

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